

Preface

Julius Petersen's paper 'Die Theorie der regulären graphs' in *Acta Mathematica*, volume 15 (1891), stands at the beginning of graph theory as we know it today.

The Danish group of graph theorists decided in 1985 to mark the 150th birthday of Petersen in 1989, as well as the centennial of his paper. The group was later joined by Jesper Lützen and Gert Sabidussi, and preparations started in 1987.

It was felt that the occasion called for a presentation of Petersen's famous paper in its historical context, and, in a wider sense, of Petersen's life and work as a whole. We soon discovered that the readily available information about Julius Petersen amounted to very little (not even a full bibliography existed); and virtually nothing was known about the circumstances that lead him to write his famous paper.

By 1990 the major part of the investigations were complete, at least in preliminary form, and a conference in honour of Petersen was held during the first week of July at Hindsgavl manorhouse on the island of Funen in Denmark. The conference was attended by 84 mathematicians from 18 countries.

The study of Petersen's life and work has resulted in several papers, in particular a biography (by Lützen, Sabidussi and Toft), a bibliography (by Christiansen, Lützen, Sabidussi and Toft), an annotated edition of the letters surrounding Petersen's paper of 1891 (by Sabidussi), an analysis of Petersen's paper (by Mulder), and an annotated edition of parts of Petersen's correspondence with Sylow on Galois theory (by Lützen). The first four of these papers, together with a survey of matching theory (by Plummer), form the first part of the present volume 100 of *Discrete Mathematics*.

In addition to these five special papers, volume 100 consists of papers submitted to us to celebrate the Petersen centennial, as does volume 101. Many of these papers were not presented at the conference and come from the graph theoretical community at large. They appear in alphabetical order by author, except for a few that were delayed for various reasons and therefore appear 'out of order'. We are grateful to all who submitted papers and to those who refereed them, often within narrow time limits. We are also grateful to the editor-in-chief of *Discrete Mathematics*, Peter Hammer, for offering to devote volumes 100 and 101 to this important anniversary in the history of graph theory. We wish to thank the editorial and technical staff of North-Holland Publishing Company for their fine cooperation.

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